

Bijal V. Vakil (CA State Bar No. 192878)
bvakil@whitecase.com
Shamita D. Etienne-Cummings (CA State Bar No. 202090)
setienne@whitecase.com
Henry Y. Huang (CA State Bar No. 252832)
henry.huang@whitecase.com
WHITE & CASE LLP
3000 El Camino Real
Two Palo Alto Square, Suite 900
Palo Alto, CA 94306-2109
Telephone: 650.213.0300
Facsimile: 650.213.8158

Attorneys for Plaintiff
Google LLC

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

GOOGLE LLC,

Plaintiff,

V.

ECOFACTOR, INC.,

Defendant.

Case No. 5:21-cv-3220

COMPLAINT FOR DECLARATORY JUDGMENT

DEMAND FOR JURY TRIAL

Plaintiff Google LLC (“Google”), for its complaint against Defendant EcoFactor, Inc. (“EcoFactor”), alleges:

NATURE OF THE ACTION

1. This is an action for declaratory judgment of non-infringement of U.S. Patent Nos. 8,740,100 (“100 Patent”), 8,751,186 (“186 Patent”), 9,194,597 (“597 Patent”) and 10,584,890 (“890 Patent”) (collectively, the “Asserted Patents,” attached as Exhibits 1-4, respectively) against EcoFactor, pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201-02, and the patent laws of the United States, 35 U.S.C. § 100 et seq., and for any and all other relief the Court deems just and proper.

1 2. Google requests this relief because EcoFactor filed a complaint with the Western
2 District of Texas (“W.D. Tex.”), Docket No. 6:21-cv-00428 (the “ecobee W.D. Tex. Action”),
3 claiming that ecobee, Inc. infringed the Asserted Patents because ecobee designed, developed,
4 manufactured, tested, used, offered for sale, sold, and/or imported “smart thermostats, smart
5 HVAC systems, smart HVAC control systems, and components thereof.” A true and correct copy
6 of EcoFactor’s public complaint is attached as Exhibit 5 (the “ecobee W.D. Tex. Complaint”).
7

8 3. The products accused in the ecobee W.D. Tex. Action are “smart thermostat
9 systems, smart HVAC systems, smart HVAC control systems, and all components (including
10 accessories) thereof” (the “Product Category”). Ex. 5, ¶ 10. Google also makes and sells smart
11 thermostat systems, including the Nest Thermostat and the Nest Third Generation Learning
12 Thermostat (the “Accused Google Products”), which have been accused of patent infringement by
13 EcoFactor in prior pending litigation.

14 4. EcoFactor previously asserted a dozen patents, including patents related to the
15 Asserted Patents, in multiple pending cases against both ecobee and Google, also accusing the
16 same technology, such as in the Product Category. *See infra* ¶¶ 14-20. So far, EcoFactor has
17 sued multiple defendants at a time on each set of asserted patents. Such repeated filings against
18 Google, ecobee, and other defendants identified below over the same and related technology
19 constitute a course of conduct that demonstrates EcoFactor’s preparedness and willingness to
20 enforce its patent rights against Google. Moreover, EcoFactor’s past litigation conduct
21 demonstrates that it enforces the same patents against ecobee and Google in the Product
22 Category.

23 5. An actual and justiciable controversy therefore exists under 28 U.S.C. §§ 2201-
24 2202 between Google and EcoFactor as to whether Google is infringing or has infringed the
25 Asserted Patents.

1
2 **THE PARTIES**
3

4 6. Plaintiff Google LLC is a subsidiary of Alphabet Inc. with its principal place of
5 business located at 1600 Amphitheatre Parkway, Mountain View, California 94043.
6

7 7. Upon information and belief, Defendant EcoFactor, Inc. is a privately held
8 company organized under Delaware's laws, with a principal place of business at 441 California
9 Avenue, Number 2, Palo Alto, California 94301.
10

9 **JURISDICTION AND VENUE**
11

12 8. Google files this complaint against EcoFactor pursuant to the patent laws of the
13 United States, Title 35 of the United States Code, with a specific remedy sought based upon the
14 laws authorizing actions for declaratory judgment in the federal courts of the United States, 28
15 U.S.C. §§ 2201 and 2202, and under the patent laws of the United States, 35 U.S.C. §§ 1-390.
16

17 9. This Court has subject matter jurisdiction over this action, which arises under the
18 United States' patent laws, pursuant to 28 U.S.C. §§ 1331, 1338(a), and 2201(a).
19

20 10. This Court has personal jurisdiction over EcoFactor, which has its principal place
21 of business in Palo Alto, California.
22

23 11. Venue in this District is proper under 28 U.S.C. §§ 1391(b) because EcoFactor
24 resides in this District, and also because EcoFactor is subject to personal jurisdiction in this
25 District, and a substantial part of the events giving rise to Google's declaratory judgment claim of
26 non-infringement (such as the development and sale of Nest thermostats) occurred in this District.
27

28 **INTRADISTRICT ASSIGNMENT**
29

30 12. Pursuant to Civil L.R. 3-2(c) and 3-5(b), this is an Intellectual Property Rights
31 Action subject to assignment on a district-wide basis.
32

33 **FACTUAL BACKGROUND**
34

35 13. Google's headquarters at 1600 Amphitheatre Parkway, Mountain View, California
36

1 94043 are located in this District. Google's mission is to organize the world's information and
2 make it universally accessible and useful. Over the past two decades, in service of that mission,
3 Google has become one of the world's most innovative technology companies.

4 14. EcoFactor has asserted its patents against allegedly infringing products that
5 originated at Nest Labs that launched in 2010 in Palo Alto. The founders of Nest sought to save
6 the planet while saving consumers money with their energy usage. After merging with the
7 Google family of companies in 2014, the Nest product division has continued to operate primarily
8 in the San Francisco Bay Area. The vast majority of technical and business activities related to
9 Nest have occurred and continue to occur in this District.

10 15. Starting in late 2019, EcoFactor conducted a patent litigation campaign against
11 Google and other smart thermostat manufacturers, such as ecobee. Against Google, EcoFactor
12 asserted 12 patents across four different cases, including lawsuits in the District of Massachusetts,
13 the Western District of Texas, and the International Trade Commission ("ITC").

14 16. On November 12, 2019, EcoFactor sued Google in the District of Massachusetts,
15 asserting four patents related to the Asserted Patents. *See EcoFactor, Inc. v. Google LLC*, No.
16 1:19-cv-12322-DJC (D. Mass.). That case is currently stayed pending the ITC case below.

17 17. On November 22, 2019, EcoFactor filed another lawsuit against Google at the
18 ITC, asserting the patents in the Massachusetts action above. *See In the matter of Certain Smart*
19 *Thermostats, Smart HVAC Systems and Components Thereof*, Investigation No. 337-TA-1185
20 (ITE) (the "1185 Investigation"). The 1185 Investigation confirmed that the venue at the center
21 of the allegations is in this District because EcoFactor's witnesses, Google's source code (and the
22 review of such source code), and Google's U.S. witnesses are all located in this District. On
23 April 20, 2021, the ITC issued an initial determination in the 1185 Investigation, finding no
24 violation by Google or any other respondents.

25 18. On January 31, 2020, EcoFactor then filed another lawsuit against Google in the

1 Western District of Texas, asserting another four patents related to the Asserted Patents. See
2 *EcoFactor, Inc. v. Google LLC*, No. 6:20-cv-00075 (W.D. Tex.). That case is currently
3 proceeding through discovery, with trial set for December 6, 2021.

4 19. On February 25, 2021, EcoFactor filed a fourth lawsuit against Google, at the ITC,
5 asserting another four patents related to the Asserted Patents. See *In the matter of Certain Smart*
6 *Thermostat Systems, Smart HVAC Systems, Smart HVAC Control Systems, And Components*
7 *Thereof*, Investigation No. 337-TA-1258 (ITC, filed Feb. 25, 2021) (the “1258 Investigation”).
8 That case is currently proceeding through discovery.
9

10 20. On March 1, 2021, Google filed a declaratory relief action in this District relating
11 to the patents at issue in the 1258 Investigation. EcoFactor stipulated to a stay of that action
12 pending resolution of the 1258 Investigation. See *Google LLC v. EcoFactor, Inc.*, No. 5:21-cv-
13 1468-JD (N.D. Cal.).
14

15 21. Across four cases filed within the past 18 months, EcoFactor has asserted 12
16 patents against Google, all related to smart thermostat systems, and all accusing Google’s Nest
17 line of smart thermostat products. Those dozen patents are related to the Asserted Patents.
18 EcoFactor has also sued multiple other companies in these litigations, including: ecobee, Vivint,
19 Inc., Alarm.com Inc., Johnson Controls Inc., Emerson Electric Co., Resideo Technologies, Inc.,
20 Honeywell International Inc., Siemens Industry, Inc., Siemens AG, Daikin Industries, Ltd.,
21 Schneider Electric USA, Inc., and Carrier Global Corp. EcoFactor’s litigation conduct evidences
22 that the same patents are asserted against ecobee and Google in the Product Category.
23

24 22. From this litigation activity, EcoFactor engages in a course of conduct that shows
25 a preparedness and a willingness to enforce its patent rights relating to the same technology
26 against the same set of products. These repeated assertions demonstrate a substantial risk that
27 Google will face harm from further patent infringement allegations, including the new Asserted
28 Patents that EcoFactor asserts against ecobee. EcoFactor’s past actions demonstrate that it plans

to assert multiple sets of patents against multiple defendants at once, including Google.

23. The Accused Google Products do not directly or indirectly infringe any asserted claim of the Asserted Patents, either literally or under the doctrine of equivalents. Google has not caused, directed, requested, or facilitated any such infringement, and it did not have any specific intent to do so.

COUNT I:

DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '100 PATENT

24. Google hereby restates and incorporates by reference the allegations set forth in paragraphs 1 through 23 of this Complaint as if fully set forth herein.

25. EcoFactor claims to own all right, title, and interest in the '100 patent by assignment.

26. In the ecobee W.D. Tex. Complaint, EcoFactor alleges that the Product Category infringes the '100 patent. *See, e.g.*, Ex. 5 ¶¶ 10, 17-24.

27. The Accused Google Products do not include or practice multiple claim limitations of the claims of the '100 patent, including, but not limited to: "a thermostatic controller having at least two settings for a delay enforced by said thermostatic controller after said thermostatic controller turns said ventilation system off prior to allowing said thermostatic controller to signal said ventilation system to turn on again," "one setting being for a first interval," "at least a second setting for a time interval that is longer than said first interval," "access stored data comprising a plurality of internal temperature measurements taken within a structure and a plurality of outside temperature measurements relating to the temperatures outside the structure," "use the stored data to predict a rate of change of temperatures inside the structure in response to at least changes in outside temperatures," and "evaluate one or more parameters including at least the outside temperature measurements and the predicted rate of change, and to determine whether to adopt said first interval or said second interval based upon the values of said parameters."

28. An actual and justiciable controversy therefore exists between Google and EcoFactor regarding whether any of the Accused Google Products have infringed any of the asserted claims of the '100 patent. A judicial declaration is necessary to determine the parties' respective rights regarding the '100 patent.

29. Google seeks a judgment declaring that Google does not directly or indirectly infringe any asserted claims of the '100 patent, either literally or under the doctrine of equivalents.

COUNT II:

DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '186 PATENT

30. Google hereby restates and incorporates by reference the allegations set forth in paragraphs 1 through 23 of this Complaint as if fully set forth herein.

31. EcoFactor claims to own all right, title, and interest in the '186 patent by assignment.

32. In the ecobee W.D. Tex. Complaint, EcoFactor alleges that the Product Category infringes the '186 patent. *See, e.g.*, Ex. 5, ¶¶ 10, 27-34.

33. The Accused Google Products do not include or practice multiple claim limitations of the claims of the '186 patent, including, but not limited to: "the one or more server computers configured to receive inside temperature measurements from at least a first location conditioned by at least one HVAC system," "one or more databases that store the inside temperature measurements over time," "the one or more server computers to receive outside temperature measurements from at least one source other than the HVAC system," "wherein the one or more server computers are configured to calculate one or more predicted rates of change in temperature at the first location based on status of the HVAC system, and based on the outside temperature measurements, wherein the one or more predicted rates of change predict a speed a temperature inside the first location will change in response to changes in outside temperature," and "the one

or more server computers are further configured to determine whether to direct the HVAC control system to pre-cool the first structure based on the one or more predicted rates of change prior to directing the HVAC control system to reduce electricity demand.”

34. An actual and justiciable controversy therefore exists between Google and EcoFactor regarding whether any of the Accused Google Products have infringed any of the asserted claims of the '186 patent. A judicial declaration is necessary to determine the parties' respective rights regarding the '186 patent.

35. Google seeks a judgment declaring that Google does not directly or indirectly infringe any asserted claims of the '186 patent, either literally or under the doctrine of equivalents.

COUNT III:

DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE '597 PATENT

36. Google hereby restates and incorporates by reference the allegations set forth in paragraphs 1 through 23 of this Complaint as if fully set forth herein.

37. EcoFactor claims to own all right, title, and interest in the '597 patent by assignment.

38. In the ecobee W.D. Tex. Complaint, EcoFactor alleges that the Product Category infringes the '597 patent. *See, e.g.*, Ex. 5, ¶¶ 10, 37-44.

39. The Accused Google Products do not include or practice multiple claim limitations of the claims of the '597 patent, including, but not limited to: "stored data comprising a plurality of internal temperature measurements taken within a structure and a plurality of outside temperature measurements" "using the stored data to predict changes in temperature inside the structure in response to at least changes in outside temperatures," "the scheduled programming comprising at least a first automated setpoint at a first time," "generating with the at least one computer, a difference value based on comparing at least one of the an actual setpoints at the first

1 time for the thermostatic controller to the first automated setpoint for the thermostatic controller,”
2 “detecting a manual change to the first automated setpoint by determining whether the at least one
3 of the actual setpoints and the first automated setpoint are the same or different based on the
4 difference value,” and “detecting a manual change to the first automated setpoint by determining
5 whether the at least one of the actual setpoints and the first automated setpoint are the same or
6 different.”

7 40. An actual and justiciable controversy therefore exists between Google and
8 EcoFactor regarding whether any of the Accused Google Products have infringed any of the
9 asserted claims of the ’597 patent. A judicial declaration is necessary to determine the parties’
10 respective rights regarding the ’597 patent.

11 41. Google seeks a judgment declaring that Google does not directly or indirectly
12 infringe any asserted claims of the ’597 patent, either literally or under the doctrine of
13 equivalents.

14 **COUNT IV:**

15 **DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF THE ’890 PATENT**

16 42. Google hereby restates and incorporates by reference the allegations set forth in
17 paragraphs 1 through 23 of this Complaint as if fully set forth herein.

18 43. EcoFactor claims to own all right, title, and interest in the ’890 patent by
19 assignment.

20 44. In the ecobee W.D. Tex. Complaint, EcoFactor alleges that the Product Category
21 infringes the ’890 patent. *See, e.g.*, Ex. 5, ¶¶ 10, 47-54.

22 45. The Accused Google Products do not include or practice multiple claim limitations
23 of the claims of the ’890 patent, including, but not limited to: “a wireless radio compatible with a
24 wireless radio frequency protocol and configured to communicate bi-directionally with a location-
25 aware mobile device,” “receive radio frequency signals from the location-aware mobile-device,”

1 “receive geo-positioning data from the location-aware mobile device,” “initiating at least one
 2 cooling or heating cycle for the HVAC system when the geo-positioning data is determined to
 3 indicate that the building is unoccupied by the user;” “analyze a plurality of data parameters
 4 specific to the user, including at least one data parameter relating to usage of the HVAC system at
 5 various times,” and “a compressor delay circuit configured to delay the start or stop of a
 6 compressor for the HVAC system and protect the compressor from rapid cycling.”
 7

8 46. An actual and justiciable controversy therefore exists between Google and
 9 EcoFactor regarding whether any of the Accused Google Products have infringed any of the
 10 asserted claims of the ’890 patent. A judicial declaration is necessary to determine the parties’
 11 respective rights regarding the ’890 patent.

12 47. Google seeks a judgment declaring that Google does not directly or indirectly
 13 infringe any asserted claims of the ’890 patent, either literally or under the doctrine of
 14 equivalents.
 15

PRAYER FOR RELIEF

16 WHEREFORE, Google prays for judgment as follows:
 17

18 A. Declaring that Accused Google Products do not directly or indirectly infringe any
 19 asserted claims of the ’100 patent, either literally or under the doctrine of equivalents;

20 B. Declaring that Accused Google Products do not directly or indirectly infringe any
 21 asserted claims of the ’186 patent, either literally or under the doctrine of equivalents;

22 C. Declaring that Accused Google Products do not directly or indirectly infringe any
 23 asserted claims of the ’597 patent, either literally or under the doctrine of equivalents;

24 D. Declaring that Accused Google Products do not directly or indirectly infringe any
 25 asserted claims of the ’890 patent, either literally or under the doctrine of equivalents;

26 E. Declaring that judgment be entered in favor of Google and against EcoFactor on
 27 Google’s claims;
 28

- 1 F. Finding that this is an exceptional case under 35 U.S.C. § 285;
2 G. Awarding Google its costs and attorneys' fees in connection with this action; and
3 H. Awarding Google such other and further relief as the Court deems just and proper.

4 **JURY DEMAND**

5 Pursuant to Federal Rule of Civil Procedure 38 and Civil Local Rule 3-6, Google demands
6 a jury trial on all issues and claims so triable.
7

8 Dated: April 30, 2021

Respectfully submitted,

9 By: /s/Bijal V. Vakil
10 Bijal V. Vakil

11 Bijal V. Vakil (CA State Bar No. 192878)
12 bvakil@whitecase.com
13 Shamita D. Etienne-Cummings
14 (CA State Bar No. 202090)
15 setienne@whitecase.com
16 Henry Y. Huang (CA State Bar No. 252832)
17 henry.huang@whitecase.com
18 WHITE & CASE LLP
19 3000 El Camino Real
20 Two Palo Alto Square, Suite 900
21 Palo Alto, CA 94306-2109
22 Telephone: 650.213.0300
23 Facsimile: 650.213.8158
24
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20 Attorneys for Plaintiff
21 Google LLC
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